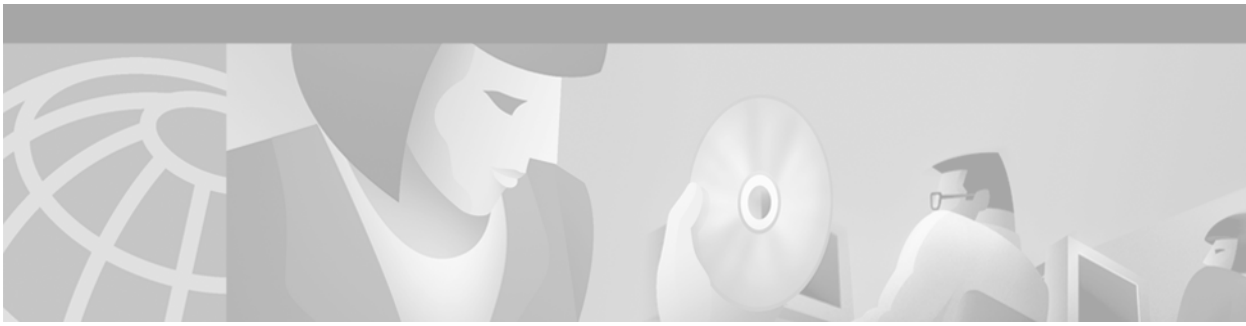

Center-Mount Bracket Installation Guide for Cisco 3640 Routers

This document provides instructions for use of center-mount brackets for rack mounting of Cisco 3640 routers.

The center-mount bracket provides enhanced solidarity for router chassis mounted in standard 23-inch telco racks. This mounting system assures earthquake safety for rack-mounted routers.

The center-mount bracket kit contains one pair of brackets and 12 screws for attaching the brackets to the router chassis. The two brackets are identical, and each bracket can be mounted on either side of the router chassis.

Use this document in conjunction with the following documents:

- *Cisco 3600 Series Routers Hardware Installation Guide*, DOC-785921=
- *Cisco 3600 Series Routers Regulatory Compliance and Safety Information*, 78-3020-xx

If you have questions or need help, see the "Obtaining Technical Assistance" section on page 9.

This document contains the following sections:

- Safety Recommendations, page 2
- Required Tools and Equipment, page 5
- Attaching the Center-Mount Brackets to the Chassis, page 5
- Installing the Chassis in a 23-Inch Telco Rack, page 7
- Obtaining Documentation, page 8
- Obtaining Technical Assistance, page 9

CISCO SYSTEMS

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78-11336-01

Safety Recommendations

Safety Warnings

Warning **This symbol means *danger*. You are in a situation that could cause bodily injury. Before you work on any equipment, you must be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. To see translations of the various warnings that appear in this publication, refer to the *Regulatory Compliance and Safety Information* document that accompanied this device.**

Waarschuwing Dit waarschuwingssymbool betekent gevaar. U verkeert in een situatie die lichamelijk letsel kan veroorzaken. Voordat u aan enige apparatuur gaat werken, dient u zich bewust te zijn van de bij elektrische schakelingen betrokken risico's en dient u op de hoogte te zijn van standaard maatregelen om ongelukken te voorkomen. Voor vertalingen van de waarschuwingen die in deze publicatie verschijnen, kunt u het document *Regulatory Compliance and Safety Information* (Informatie over naleving van veiligheids- en andere voorschriften) raadplegen dat bij dit toestel is ingesloten.

Varoitus Tämä varoitusmerkki merkitsee vaaraa. Olet tilanteessa, joka voi johtaa ruumiinvammaan. Ennen kuin työskentelet minkään laitteiston parissa, ota selvää sähkökytkentöihin liittyvistä vaaroista ja tavanomaisista onnettomuuksien ehkäisykeinoista. Tässä julkaisussa esiintyvien varoitusten käännökset löydät laitteen mukana olevasta *Regulatory Compliance and Safety Information* -kirjasesta (määräysten noudattaminen ja tietoa turvallisuudesta).

Attention Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant causer des blessures ou des dommages corporels. Avant de travailler sur un équipement, soyez conscient des dangers posés par les circuits électriques et familiarisez-vous avec les procédures couramment utilisées pour éviter les accidents. Pour prendre connaissance des traductions d'avertissements figurant dans cette publication, consultez le document *Regulatory Compliance and Safety Information* (Conformité aux règlements et consignes de sécurité) qui accompagne cet appareil.

Warnung Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu einer Körperverletzung führen könnte. Bevor Sie mit der Arbeit an irgendeinem Gerät beginnen, seien Sie sich der mit elektrischen Stromkreisen verbundenen Gefahren und der Standardpraktiken zur Vermeidung von Unfällen bewußt. Übersetzungen der in dieser Veröffentlichung enthaltenen Warnhinweise finden Sie im Dokument *Regulatory Compliance and Safety Information* (Informationen zu behördlichen Vorschriften und Sicherheit), das zusammen mit diesem Gerät geliefert wurde.

Avvertenza Questo simbolo di avvertenza indica un pericolo. La situazione potrebbe causare infortuni alle persone. Prima di lavorare su qualsiasi apparecchiatura, occorre conoscere i pericoli relativi ai circuiti elettrici ed essere al corrente delle pratiche standard per la prevenzione di incidenti. La traduzione delle avvertenze riportate in questa pubblicazione si trova nel documento *Regulatory Compliance and Safety Information* (Conformità alle norme e informazioni sulla sicurezza) che accompagna questo dispositivo.

Advarsel Dette varselsymbolet betyr fare. Du befinner deg i en situasjon som kan føre til personskade. Før du utfører arbeid på utstyr, må du vare oppmerksom på de faremomentene som elektriske kretser innebærer, samt gjøre deg kjent med vanlig praksis når det gjelder å unngå ulykker. Hvis du vil se oversettelser av de advarslene som finnes i denne publikasjonen, kan du se i dokumentet *Regulatory Compliance and Safety Information* (Overholdelse av forskrifter og sikkerhetsinformasjon) som ble levert med denne enheten.

Aviso Este símbolo de aviso indica perigo. Encontra-se numa situação que lhe poderá causar danos físicos. Antes de começar a trabalhar com qualquer equipamento, familiarize-se com os perigos relacionados com circuitos eléctricos, e com quaisquer práticas comuns que possam prevenir possíveis acidentes. Para ver as traduções dos avisos que constam desta publicação, consulte o documento *Regulatory Compliance and Safety Information* (Informação de Segurança e Disposições Reguladoras) que acompanha este dispositivo.

¡**Advertencia**! Este símbolo de aviso significa peligro. Existe riesgo para su integridad física. Antes de manipular cualquier equipo, considerar los riesgos que entraña la corriente eléctrica y familiarizarse con los procedimientos estándar de prevención de accidentes. Para ver una traducción de las advertencias que aparecen en esta publicación, consultar el documento titulado *Regulatory Compliance and Safety Information* (Información sobre seguridad y conformidad con las disposiciones reglamentarias) que se acompaña con este dispositivo.

Varning! Denna varningssymbol signalerar fara. Du befinner dig i en situation som kan leda till personskada. Innan du utför arbete på någon utrustning måste du vara medveten om farorna med elkretsar och känna till vanligt förfarande för att förebygga skador. Se förklaringar av de varningar som förkommer i denna publikation i dokumentet *Regulatory Compliance and Safety Information* (Efterrättelse av föreskrifter och säkerhetsinformation), vilket medföljer denna anordning.

Warning **Only trained and qualified personnel should be allowed to install or replace this equipment.**

Warning **Ultimate disposal of this product should be handled according to all national laws and regulations.**

Warning **The ISDN connection is regarded as a source of voltage that should be inaccessible to user contact. Do not attempt to tamper with or open any public telephone operator (PTO)-provided equipment or connection hardware. Any hardwired connection (other than by a nonremovable, connect-one-time-only plug) must be made only by PTO staff or suitably trained engineers.**

Warning **To avoid electric shock, do not connect safety extra-low voltage (SELV) circuits to telephone-network voltage (TNV) circuits. LAN ports contain SELV circuits, and WAN ports contain TNV circuits. Some LAN and WAN ports both use common connectors. Use caution when connecting cables.**

Warning **Hazardous network voltages are present in WAN ports regardless of whether power to the router is OFF or ON. To avoid electric shock, use caution when working near WAN ports. When detaching cables, detach the end away from the router first.**

Warning **Do not work on the system or connect or disconnect cables during periods of lightning activity.**

Caution **NEBS/ETSI Intrabuilding Lightning Requirement**
This equipment is suitable for connection to intrabuilding or nonexposed wiring or cabling only. This cabling must be shielded.

General Safety Practices

Follow these guidelines to ensure general safety:

- Keep the chassis area clear and dust-free during and after installation.
- Keep tools away from walk areas where you or others could fall over them.
- Do not wear loose clothing that could get caught in the chassis. Fasten your tie or scarf, and roll up your sleeves.
- Wear safety glasses when working under any conditions that might be hazardous to your eyes.
- Do not perform any action that creates a potential hazard to people or makes equipment unsafe.

Safety with Electricity

Follow these guidelines when working on equipment powered by electricity:

Warning **Before working on equipment that is connected to power lines, remove jewelry (including rings, necklaces, and watches). Metal objects will heat up when connected to power and ground and can cause serious burns or weld the metal object to the terminals.**

- Locate the emergency power-off switch in the room in which you are working. Then, if an electrical accident occurs, you can quickly shut the power OFF.
- Disconnect all power before installing or removing a Cisco router chassis
- Do not work alone if potentially hazardous conditions exist.
- Never assume that power is disconnected from a circuit. Always check.
- Look carefully for possible hazards in your work area, such as moist floors, ungrounded power extension cables, and missing safety grounds.
- If an electrical accident occurs, proceed as follows:
  - Use caution; do not become a victim yourself.
  - Turn OFF power to the chassis.
  - If possible, send another person to get medical aid. Otherwise, determine the condition of the victim and then call for help.
  - Determine if the person needs rescue breathing or external cardiac compressions; then take appropriate action.

Required Tools and Equipment

You need the following tools and equipment to install the center-mount brackets:

- Number 2 Phillips screwdriver
- Screws for rack mounting

Attaching the Center-Mount Brackets to the Chassis

You can use the center mount brackets to install the Cisco 3640 chassis with either the front panel or the rear panel facing forward. The bracket orientation and attachment holes used are different for front-facing and rear-facing installations.

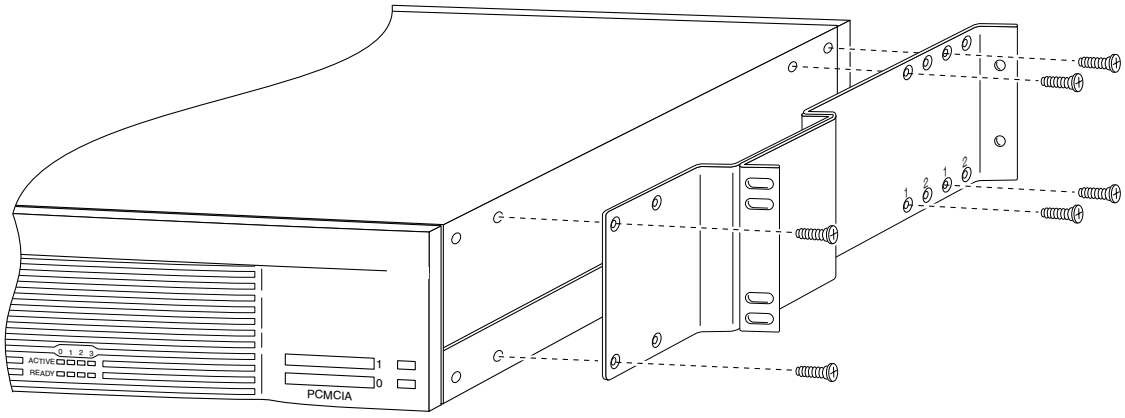
Complete the applicable procedure below, depending on the required chassis orientation in the rack.

Front-Panel Forward Installation

Attach one bracket to each side of the Cisco 3640 chassis as shown in Figure 1.

- Position the angled end of the bracket flush with the rear of the chassis.
- Insert the four screws at the rear into the bracket holes numbered “1.”
- Insert the two screws at the front into the two lined-up holes.

Figure 1 Bracket Attachment with Front Panel Facing Forward



The second bracket attaches to the other side of the chassis.
Use holes numbered 1 for front-panel forward.

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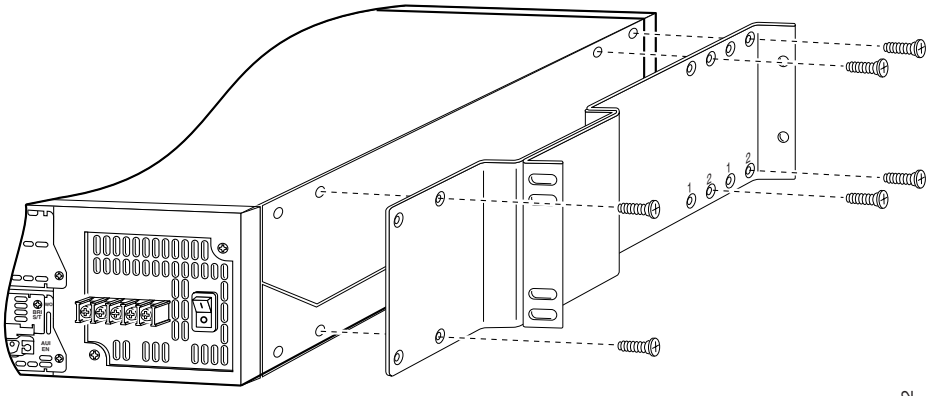
Rear-Panel Forward Installation

Attach one bracket to each side of the Cisco 3640 chassis as shown in Figure 2.

- Position the angled end of the bracket toward the front of the chassis, flush with the back of the bezel.
- Insert the four screws at the front into the bracket holes numbered "2."
- Insert the two screws at the rear into the two lined-up holes.

Figure 2 Bracket Attachment with Rear Panel Facing Forward



The second bracket attaches to the other side of the chassis.
Use holes numbered 2 for rear-panel forward.

Installing the Chassis in a 23-Inch Telco Rack

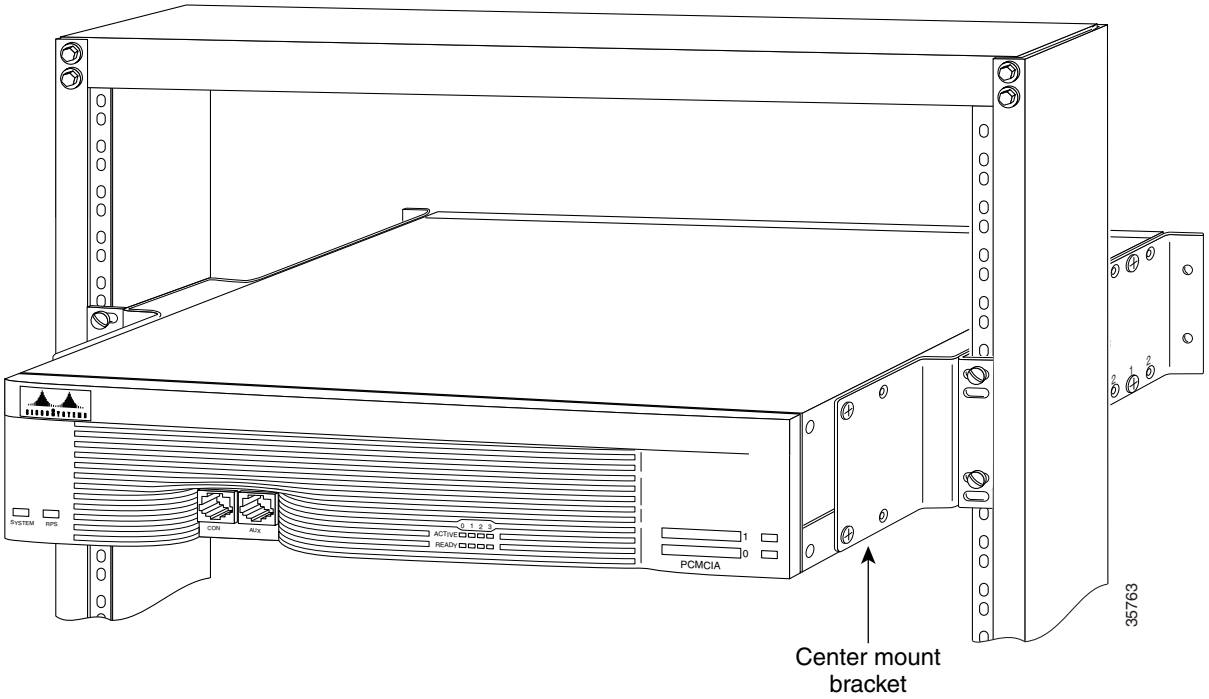
You can install the Cisco 3640 router in a Telco rack with either the front or the rear panel facing forward. The brackets must be correctly attached to the chassis, according to the orientation.

Complete the applicable procedure below, depending on the required chassis orientation in the rack.

Front-Panel Forward Installation

Install the Cisco 3640 chassis in the rack as shown in Figure 3, and secure it in place using the screws provided with the rack.

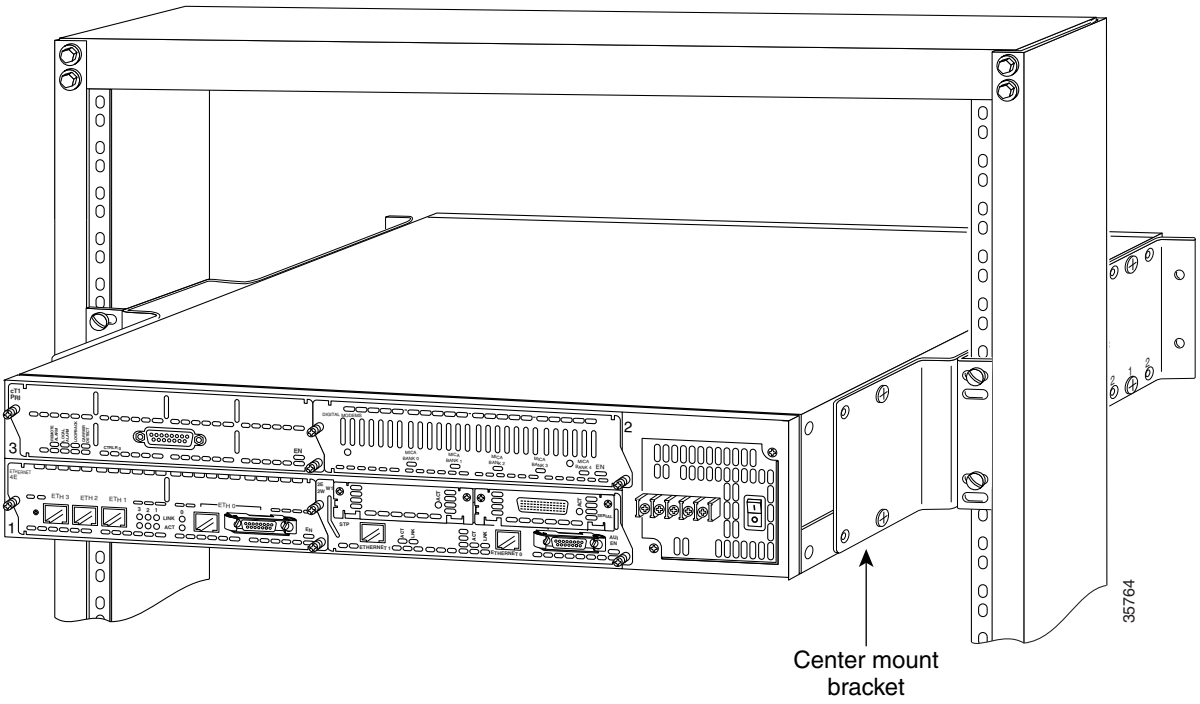
Figure 3 Rack Installation with Front Panel Facing Forward



Rear-Panel Forward Installation

Install the Cisco 3640 chassis in the rack as shown in Figure 4, and secure it in place using the screws provided with the rack.

Figure 4 Rack Installation with Rear Panel Facing Forward



Obtaining Documentation

World Wide Web

You can access the most current Cisco documentation on the World Wide Web at http://www.cisco.com, http://www-china.cisco.com, or http://www-europe.cisco.com.

Documentation CD-ROM

Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Documentation CD-ROM is updated monthly. Therefore, it is probably more current than printed documentation. The CD-ROM package is available as a single unit or as an annual subscription.

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Obtaining Technical Assistance

Cisco provides Cisco Connection Online (CCO) as a starting point for all technical assistance. Warranty or maintenance contract customers can use the Technical Assistance Center. All customers can submit technical feedback on Cisco documentation using the web, e-mail, a self-addressed stamped response card included in many printed docs, or by sending mail to Cisco.

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- WWW: www.cisco.com
- Telnet: cco.cisco.com
- Modem using standard connection rates and the following terminal settings: VT100 emulation; 8 data bits; no parity; and 1 stop bit.
  - From North America, call 408 526-8070
  - From Europe, call 33 1 64 46 40 82

You can e-mail questions about using CCO to cco-team@cisco.com.

Technical Assistance Center

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To display the TAC web site that includes links to technical support information and software upgrades and for requesting TAC support, use www.cisco.com/techsupport.

To contact by e-mail, use one of the following:

Language	E-mail Address
English	tac@cisco.com
Hanzi (Chinese)	chinese-tac@cisco.com
Kanji (Japanese)	japan-tac@cisco.com
Hangul (Korean)	korea-tac@cisco.com
Spanish	tac@cisco.com
Thai	thai-tac@cisco.com

In North America, TAC can be reached at 800 553-2447 or 408 526-7209. For other telephone numbers and TAC e-mail addresses worldwide, consult the following web site: http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml.

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